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**ADVISORY ACTION**

1. The following is an advisory action in response to communications received on 03/30/2009. Claim 15 has been cancelled. Claims 18 and 19 have been amended.

Thus, claims 1- 14 and 16-22 are pending in this application.

2. Due to the amendment made to the independent claims, the following ground of rejection would be established as follows to address the current claimed limitations.

NOTE: - Regarding "FIG A" discussed in this *Advisory Action*, refer to the FIG A illustrated in the previous office action.

- Claims 1,3-4, 6, 9-10, 12-13, and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caprai 6,251,015 in view of Ritchie 4,637,605.

Regarding claim 1, Caprai discloses the following claimed limitations, a riding simulation system for providing an operator with a simulated experience of a running condition of a motor cycle (col.1, lines 64-66), the system comprising a display for displaying scenery viewable to the operator as a video image on the display (see FIG 1, display not labeled), wherein the video image is simulated based on an operating condition designated by the operator through the operation of an operating condition simulating mechanism (col.3, lines 20-27), a steering handle mechanism capable of being gripped by the operator (FIG 3, label 56), a body for rotatably securing the steering handle mechanism (FIG 3, label 16), and a control unit (FIG 1, label 14).

Caprai further implicitly discloses, the body for rotatably securing the steering handle mechanism comprising a pair of left and right main frames (FIG 2, label 28), a centrally located main frame (FIG 2, label 22).

Caprai does not positively disclose, a pair of sub-frames connected to roughly central portions of the right and left main frames so as to extend from the left and right main frames in a direction away from the operator of the simulation system, the control unit being mounted between the pair of left and right main frames and under centrally located main frame.

However, Ritchie teaches, a pair of left and right main frames, a centrally located main frame a pair of sub-frames connected to roughly central portions of the right and left main frames (see Examiner's annotated figure, FIG A which is based on FIG 1 of Ritchie's apparatus, label Pair of sub-frames), and a control unit for the system being mounted between the pair of left and right main frames and under the centrally located main frame (FIG 1, label 3 and also see FIG A regarding the Examiner's interpretation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by incorporating the apparatus of Ritchie in order to provide a more realistic riding or simulation experience to the user, as taught by Ritchie.

With regard to the recited feature, "the pair of sub-frames extending in a direction away from the operator", according to Applicant's specification, the function of the frames is to attach the simulation system to a flat-surface table (see Para.0035, Para.0049 and Para.0051 of Applicant's disclosure). The prior art (e.g. Caprai) also discloses that the structural features taught in the reference (e.g. see FIG 2, labels 22 and 28) are employed to secure the simulation system on a table (col.3, lines 45-50). Therefore, it would have been an obvious matter of design choice as to the frame used

for securing the simulation system, wherein no stated problem is solved or unexpected result is obtained by prescribing a pair of sub-frames extending in a direction away from the operator.

Caprai in view of Ritchie teaches the claimed limitations as discussed above.

Caprai further discloses,

Regarding claim 3, a clutch lever and a brake lever (FIG 3, labels 72 and 76).

Regarding claim 4, a steering handle angle sensor for detecting a turning amount of a tip end portion of the stem member (col.4 lines 37-56 and FIG 5),

Regarding claim 6, the steering handle mechanism is formed in a cylindrical shape (FIG 3, label 56) and includes a throttle grip for an accelerating operation of the motorcycle displayed on the display (FIG 3, label 68 and col.6, lines 65-67).

Regarding claim 9, the display being a display for a personal computer (col.3, lines 17-20),

Regarding claim 10, a casing being formed in a substantially box shape (FIG 1, label 14),

Caprai does not explicitly disclose, a circuit substrate being disposed in an interior of the casing of the control unit, and a plurality of connection cables being connected to the circuit substrate through connectors.

However, Ritchie teaches, a circuit substrate (FIG 3, label 11) being disposed in an interior of the casing of a control unit (FIG 3, label 3), and a plurality of connection cables being connected to the circuit substrate through connectors (FIG 3, labels 15 and 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by placing a circuit element inside the casing in order to attach the rotating member(s) of the control unit directly with the control cables of the handlebar as taught by Ritchie.

Regarding claims 12, 13 and 16, Caprai in view of Ritchie teaches the claimed limitations as discussed above.

Ritchie further teaches, the casing of the control unit is disposed between a first main frame and a second main frame (see FIG A with the Examiner's interpretation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by placing the control unit between a pair of main frames in order to attach the rotating member(s) of the control unit directly with the control cables of the handlebar as taught by Ritchie (col. 3, lines 8-15 and FIG 1 labels 3, 15 and 17).

Further, providing plurality of flange portions on a given unit in order to attach the unit to a supporting member is an obvious and well-known expedient at the time of the claimed invention was made.

Regarding claim 17, Caprai discloses the following claimed limitations: a riding simulation system for providing an operator with a simulated experience of a running condition of a motor cycle (col.3, lines 64-66), the system comprising a display for displaying scenery viewable to the operator as a video image on the display (see FIG 1, display not labeled), wherein said video image is simulated based on an operating condition designated by the operator through the operation of an operating condition

simulating mechanism (col.3, lines 20-27), a steering handle mechanism capable of being gripped by the operator (FIG 3, label 56), a body for rotatably securing the steering handle mechanism (FIG 3, label 16), a control unit for said system (see FIG 1, label 14).

Caprai further implicitly discloses, the body comprising a pair of left and right main frames (FIG 2, label 28), a centrally located main frame (see FIG 2, label 22).

Caprai does not positively disclose, a pair of sub-frames connected to roughly central portions of the right and left main frames so as to extend from the left and right main frames in a direction away from the operator of the simulation system, the control unit being mounted between the pair of main frames.

However, Ritchie teaches, a pair of left and right main frames, a centrally located main frame a pair of sub-frames connected to roughly central portions of the right and left main frames (see Examiner's annotated figure, FIG A which is based on FIG 1 of Ritchie's apparatus, label Pair of sub-frames), and a control unit for the system being mounted between the pair of main frames (FIG 1, label 3 and also see FIG A regarding the Examiner's interpretation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by incorporating the apparatus of Ritchie in order to provide a more realistic riding or simulation experience to the user, as taught by Ritchie.

With regard to the recited feature, "the pair of sub-frames extending in a direction away from the operator", according to Applicant's specification, the function of the

frames is to attach the simulation system to a flat-surface table (see Para.0035, Para.0049 and Para.0051 of Applicant's disclosure). The prior art (e.g. Caprai) also discloses that the structural features taught in the reference (e.g. see FIG 2, labels 22 and 28) are employed to secure the simulation system on a table (co1.3, lines 45-50), and therefore this does not distinguish the current invention from the prior art, as the teaching of the prior art appears to work well for the intended purpose.

Regarding claims 18 and 19, Caprai in view of Ritchie teaches the claimed limitations as discussed above.

Caprai further discloses, the forward end of the centrally located main frame disposed farthest away from the operator (FIG 2, label 22).

Caprai does not positively disclose, the forward end of the centrally located main frame is connected to a cross frame bridging between forward ends of the sub-frames

However, Ritchie teaches, the forward end of the centrally located main frame is connected to a cross frame bridging between forward ends of the sub-frames (see FIG A, the section i.e. back wall of the control unit where the forward end of the pair of sub-frames and forward end of the central frame are connected)

Therefore, here also, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by linking the end of the steering stem to the sub-frames in order to achieve an optimum force distribution so that the simulation system would be more stable.

Regarding claims 20 and 21, Caprai in view of Ritchie teaches the claimed limitations as discussed above.

Ritchie further teaches, a cylinder portion for receiving a steering stem, and wherein each of the right, left, and centrally located main frames has an upper end connected to the cylindrical portion (see FIG A with the examiner's interpretation, the central frame, and the left and right main frames).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by using a cylindrical member in order to rotatably secure the steering stem, as taught by Ritchie.

Note that the above limitation is implicitly taught by Caprai (see FIG 2, labels 22 and 28, and FIG 3, labels 16 and 42).

Regarding claim 22, Caprai in view of Ritchie teaches the claimed limitations as discussed above. Caprai further discloses, the riding simulation apparatus adapted to be mounted on an elevated mounting surface (FIG 1), wherein said pair of left and right main frames is adapted to be secured to one side of the elevated mounting surface, and said centrally located main frame is adapted to be secured to an opposite side of the elevated mounting surface (FIG 2, labels 22 and 28).

- Claims 2, 5, 7, 8, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caprai 6,251,015 in view of Ritchie 4,637,605 and further in view of Pittarelli 3,964,564.

Regarding claim 2, Caprai in view of Ritchie teaches the claimed imitations as discussed above.

Caprai further discloses, the steering handle mechanism comprising a steering stem having a generally fan-shaped upper portion (FIG 3, label 42), an elongate steering handle being integrally held on the steering stem through a holder (FIG 3, labels 56 and 54), one of a clutch lever (FIG 3, label 76) and a brake lever (see FIG 3, label 72) are held on the steering handle, and left and right grips which are mounted respectively to end portions of the steering handle (FIG 3, label 60).

Caprai in view of Ritchie does not positively teach, lever joint portions through which at least one of a clutch lever and a brake lever are held on the steering handle.

However, Pittarelli teaches, lever joint portions through which at least one of a clutch lever and a brake lever are held on the steering handle (see FIG 1 labels 141, 142, 144 and col. 6, lines 53-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie and further in view of Pittarelli by using clamps in order to construct the joint portions in a way that the operating levers will be swingable on the handlebar as taught by Pittarelli.

Caprai in view of Ritchie and further in view of Pittarelli teaches the claimed limitations as discussed above. Caprai further discloses,

Regarding claim 5, a steering handle angle sensor for detecting a turning amount of a tip end portion of the stem member (col.4 lines 37-56 and FIG 5),

Regarding claims 7 and 8, the steering handle mechanism is formed in a cylindrical shape (FIG 3, label 56), and includes a throttle grip (FIG 3, label 68) for an accelerating operation of the motorcycle displayed on the display (col.6, lines 65-67).

Regarding claim 11, the control unit further including a casing being formed in a substantially box shape (FIG 1, label 14),

Ritchie further teaches, a circuit substrate (FIG 3, label 11) being disposed in an interior of the casing of a control unit (FIG 3, label 3), and a plurality of connection cables being connected to the circuit substrate through connectors (FIG 3, labels 15 and 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie in and further in view of Pittarelli by placing a circuit element inside the casing in order to attach the rotating member(s) of the control unit directly with the control cables of the handlebar as taught by Ritchie.

Here also, the above limitation is implicitly taught by Caprai (col.5, lines 19-25).

Regarding claim 14, Caprai in view of Ritchie in and further in view of Pittarelli teaches the claimed limitations as discussed above.

Ritchie further teaches, the circuit substrate is disposed in the interior of the casing (FIG 3, label 3), the connectors are disposed at a lower end portion of the circuit substrate, and the connection cables are connected to the circuit substrate through the connectors (FIG 3, labels 15 and 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie and further in view of Pittarelli by placing a circuit element inside the casing in order to

attach the rotating member(s) of the control unit directly with the control cables of the handlebar as taught by Ritchie.

***Response to Arguments.***

3. Applicant's arguments filed on 03/30/2009 have been fully considered but they are not persuasive. In the remarks,

(1) Applicant argues that, on page 3 of the office action, the Examiner has annotated FIG. A of Ritchie and alleges that control unit 3 ". . . control unit for said system being mounted between said pair of left and right main frames". The Examiner is directed to enlarged, detail versions (FIGS. 4, 9 and 10) of the Ritchie device as shown in high-level FIG1. It is evident that from each of Ritchie's FIGS. 1, 4, 9, and 10, that control unit 3 is NOT mounted between the pair of main frames as the Examiner alleges, rather the control unit is forward of the downward extending pipes. The examiner must consider a prior art reference as a whole when making rejection, and is forbidden from randomly citing selected portions of a reference without considering the context of the entire reference.

- In response to argument (1), the Examiner respectfully disagrees. First of all, the examiner presented the illustration depicted as FIG A (e.g. see page 11 of previous office action) just to relate the Examiner's interpretation of the claims with the teaching of the prior art. This figure is the same as FIG 1 of Ritchie, except that it has additional labels to describe some parts of the structure.

Second, it appears that Applicant's argument is based on the claims' interpretation as described in the specification and drawing. However, it should be noted

that claims are given the broadest reasonable interpretation without importing any limitation from the specification (i.e. without importing any limitation from Applicant's disclosure or drawings).

Thus, with regard to the control unit, for example currently presented claims 1 recites, *"a control unit for said system being mounted between said pair of left and right main frames and under the centrally located main frame"*. This feature is pictorially taught or suggested by Ritchie's invention. For instance as already shown in FIG A (or FIG 1), the control unit (FIG 1 label 3) is attached between the two main frames (left and right main frames) and below a centrally located main frame. This illustration clearly suggests to one of ordinary skill in the art (at the time of Applicant's invention was made) that the control unit is indeed mounted between the two main frames, and under a centrally located main frame, as recited for example as currently presented in claim 1.

Further, as described in the previous office action, the criticality or functional purpose disclosed in Applicant's disclosure with regard to placing the control unit between the left and right main frames and under the centrally located main frame is to prevent the field of vision of the operator from being restricted (see Para.0057 and Para.0058 of Applicant's disclosure). It is also evident from the disclosure of the prior art (e.g. Ritchie, FIG 1, label 3), the control unit does not appear to restrict the field of vision of the user. Thus, this functional limitation has already been taught or suggested by the prior art, and as a result it does not distinguish the current invention from the prior art.

Therefore, the Examiner maintains that Applicant's currently presented claimed features would have still been obvious to one of ordinary skill in the art (in view of the prior art) for the reasons discussed above.

Regarding Applicant's argument that "the Examiner must consider a prior art reference as a whole. . . it is certainly not proper for the Examiner to selectively use the high level drawing of Ritchie's FIG. 1, while ignoring Ritchie's FIGS. 4, 9 and 10, each of which explicitly conflicts with the Examiner's allegation about the structure of Ritchie's device. . .", it appears that the Applicant has misinterpreted Ritchie's teaching.

First of all, it should be clear that Ritchie's reference is analogous to Applicant's current invention as the disclosure of the prior art also teaches a "riding simulation apparatus". That means the entire disclosure of the prior art is in the same field of Applicant's current invention.

Second, as long as a given claimed feature is described pictorially in the prior art, the Examiner can recite that particular figure based on the interpretation of the claimed feature. Therefore, Applicant's argument that ". . . it is certainly not proper for the Examiner to selectively use the high level drawing of Ritchie's FIG. 1. . . " is NOT persuasive. The Examiner does not see any rational why he should disregard a given figure of the prior art (when that given figure teaches or suggests Applicant's claimed features), only because the figure happens to be "high level drawing".

Thirdly, it is not clear to the Examiner why the Applicant argued that FIGS. 4, 9 and 10 are "explicitly" conflicting with the Examiner's "allegations" about the structure of Ritchie device, without distinctly pointing out the alleged contradiction. These figures do

not contradict with the Examiner's action. The above figures are drawings illustrating the parts of FIG 1. For example, FIG 4 is perspective view of showing the control device and manual controls of the device shown in FIG 1 (see Ritchie, col.2, lines 25-27). Similarly, FIG 9 and FIG 10 show alternative arrangements of the control cable of FIG 1 (see Ritchie, col.2, lines 35-36 and col.3, lines 62-67). In fact the examiner has already described this fact in one of the past office actions (see Pages 12-13 of Office Action mailed on 06/16/2008). It appears that the Applicant has misinterpreted the teaching of the prior art with regard to the figures.

(2) Applicant argues that, FIGS 1 and 4 of the present application explicitly illustrates sub-frames 54a, 54b connected to roughly central portions of the right and left main frames 54a, 54b so as to extend from the right and left main frames in a direction away from the operator of the simulation system. The sub-frames annotated by the Examiner in FIG A merely extend rearwardly toward the operator and not forwardly and away from the operator from a position near upper parts (rather than being connected to central portions) of the downward extending pipes.

- In response to argument (2), the Examiner respectfully disagrees. This argument also appears to be based on the narrow interpretations of the claimed features as presented in FIG 1 and FIG 4 of Applicant's disclosure. Note that as already indicated earlier, claims are given the broadest reasonable interpretation without importing any limitation from the specification (including Applicant's drawings).

Thus, regarding the sub-frames, for example claim 1 recites, "*a pair of sub-frames connected to roughly central portions the right and left main frames so as to*

*extend from the left and right main frames in a direction away from the operator of the simulation system".*

As already presented in the previous office action, FIG 1 of Ritchie teaches or suggests such sub-frames, *"a pair of sub-frames connected to roughly central portions the right and left main frames"* (the sub-frames are clearly identified in the annotated figure presented by the Examiner (FIG A)) except for explicitly teaching that the sub-frames *"extend from the left and right main frames in a direction away from the operator of the simulation system"*.

The functional limitation discussed in Applicant's specification with regard to the sub-frames is to secure the simulation system on a flat-surfaced table (e.g. see Para.0049 and Para.0051 of Applicant's specification).

However, Caprai also teaches a pair of main frames (see Caprai FIG 2) that are implemented to provide the same functional limitation (i.e. securing the simulation system on a table). For example, as shown in FIG 2 of Caprai's invention, the device incorporates an "L-shaped" frame (FIG 2, label 28) that is implemented to secure the simulation device on a table. It is evident that such "L-shaped" frame would be presented on both sides (left and right side) of the base unit (FIG2, label 16).

Therefore, it appears that the prior art teaches or suggests the functional limitations of Applicant's claimed feature; and therefore the prior art's structure appears to work well for the intended purpose. That means, in the instant case Applicant is claiming sub-frames whose functional limitation is to secure the simulation system on a flat surface (e.g. see Para.0049 of Applicant's specification). The prior art also teaches

frames whose functional limitation is to secure a simulation system on a flat table (e.g. see the above discussion regarding Caprai's device).

Therefore, the Examiner concludes that the prior art's structure appears to work well for the intended purpose.

(3) Applicant argues that independent claims 1 and 17 (as previously presented/as presented on September 2, 2008) recite "pair of sub-frames connected to roughly central portions of the right and left main frames so as to extend from the left and right main frames in a direction away from the operator", the subject matter of dependent claims 18 and 19 as presented on September 2, 2008, namely "end of the centrally located main frame disposed farthest from the operator is connected to a cross frame bridging between tip end portions of the sub-frames" must certainly be allowable. Moreover, "back wall of a control unit" does not teach the claimed "cross frame".

- In response to argument (3), the examiner respectfully disagrees. The response regarding the claimed feature "pair of sub-frames connected to roughly central portions of the right and left main frames so as to extend from the left and right main frames in a direction away from the operator" has already been discussed in the above response (see response to argument (2)) above), and thus will not be repeated here.

However, regarding the currently presented claimed imitation "a forward end of the centrally located main frame disposed farthest from the operator is connected to a cross frame bridging between forward ends of the sub-frames", as recited in claims 18 and 19, Ritchie's invention does teach or suggest this claimed limitation. Note that here

also the same principle of claim interpretation is applied (broadest reasonable interpretation without importing any limitation from Applicant's specification).

Thus, as already indicated in FIG 1 of Ritchie's reference (or FIG. A of Examiner's annotated figure), the forward end of the centrally located main frame is attached to the back wall of the control unit where the forward ends of the pair of sub-frames are also connected. That means, the back wall of the control unit is the cross frame bridging between the forward ends of the frames. There appears to be no distinct reason by the applicant to indicate why the back wall of the control unit can not be the cross frame bridging as recited in the claims.

Therefore, the Examiner maintains that Applicant's claimed features have already been taught or suggested by the prior art.

(4) Applicant argues that in the rejection of claims 20 and 21, the Examiner asserts that the claimed "cylinder portion 44" and the "centrally located main frame has an upper end connected to the cylinder portion 44" are taught by the "cylinder shaft / head pipe" of Ritchie. Ritchie teaches only one of the claimed "cylinder portion 44", and the claimed "centrally located main 52c frame has an upper end connected to the cylinder portion 44".

- In response to argument (4), the Examiner respectfully disagrees. This part of the argument also appears to be based on the narrow interpretation of the claimed features by referring to Applicant's drawings.

However, as already discussed, the Examiner does not have to import limitations from the specification to interpret the claimed limitations (as the Applicant indicated in

the above argument by relating the claimed features with the drawings in the specification); rather, the claims are given the broadest reasonable interpretation.

Thus, as already presented in the previous office action, FIG 1 (or FIG A) of Ritchie's device clearly teaches or suggests the connections of the upper end sections of the left main frame, the right main frame and the central main frame to a cylindrical portion, specifically as labeled in FIG A.

Therefore, the Examiner maintains that Caprai in view of Ritchie does teach or suggest Applicant's currently claimed limitations.

(5) Applicant argues that in the latest office action, the Examiner does not repeat his positions on pages 6 and 7 of the office action dated June 16, 2008, and instead asserts that the single "forwardly extending mount 22" and the single "L-shaped leg 28" of Caprai (in combination with Ritchie) teaches the combination of elements set forth in dependent claim 22 as previously presented. . . the left and right main frames and the centrally located main frames, as claimed, are not ornamentation only, and instead, have a specific mechanical function.

- In response to argument (5), the Examiner respectfully disagrees. Whether the Examiner repeated the discussion presented in the past office action or not, the obviousness of the claimed features in view of the prior art still holds. Note that the functional limitation given with respect to these features is to secure the simulation device on a flat surface table, for example as recited in claim 22, ". . . pair of left and right main frames is adapted to be secured to one side of the elevated mounting

surface, and the centrally located main frame is adapted to be secured to an opposite side of the elevated mounting surface".

However, further review of the references revealed that Caprai's reference in fact discloses the above claimed features; and therefore the Examiner presented this fact as already described in the previous office action (and also in this advisory action). Note that no new reference has been cited in the previous office action (under 35 U.S.C 103(a) over Caprai in view of Ritchie), and therefore citing a paragraph or a figure that further teaches the claimed feature is proper.

Therefore, the Examiner maintains that Applicant's current claimed limitations are already taught or suggested by the prior art.

In addition, regarding Applicant's remark that ". . . This amendment was not presented at an earlier date in view of the fact that the Examiner has just now presented new grounds of rejection in this Final Office Action", it should be clear that the new grounds of rejection presented in the previous office action (i.e. Final Office action mailed on 12/29/2008) was necessitated due to Applicant's amendment to the claims (e.g. claims 1, 17-19) and the newly added claim (i.e. claim 22) as presented in the set of claims filled on 09/02/2008.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruk A. Gebremichael whose telephone number is (571)270-3079. The examiner can normally be reached on Monday to Friday (7:30AM-5:00PM) ALT. Friday OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI XUAN can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner, Art Unit 3715

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